PCT09

DATE: 10/26/2001

```
TIME: 14:59:28
                     PATENT APPLICATION: US/09/787,923
                     Input Set : A:\ES.txt
                     Output Set: N:\CRF3\10262001\I787923.raw
      3 <110> APPLICANT: SANSON, ALAIN
             RUSSO-MARIE, FRANCOISE
             NEUMANN, JEAN-MICHEL
             CORDIER-OCHSENBEIN, FRANCOISE
             GUEROIS, RAPHAEL
      9 <120> TITLE OF INVENTION: CHEMICAL STRUCTURE HAVING AN AFFINITY FOR A PHOSPHOLIPID AND
LABELLING
    10
             COMPOUND, DIAGNOSIS KIT, AND DRUG COMPRISING THIS STRUCTURE
    12 <130> FILE REFERENCE: 205399US-0-XPCT
    14 <140> CURRENT APPLICATION NUMBER: US 09/787,923
    15 <141> CURRENT FILING DATE: 2001-04-02
    17 <150> PRIOR APPLICATION NUMBER: FR 98/12366
    18 <151> PRIOR FILING DATE: 1998-10-02
    20 <150> PRIOR APPLICATION NUMBER: PCT/FR99/02329
    21 <151> PRIOR FILING DATE: 1999-09-30
    23 <160> NUMBER OF SEQ ID NOS: 5
    25 <170> SOFTWARE: PatentIn version 3.1
    27 <210> SEQ ID NO: 1
    28 <211> LENGTH: 346
    29 <212> TYPE: PRT
    30 <213> ORGANISM: Homo sapiens
    32 <400> SEQUENCE: 1
    34 Met Ala Met Val Ser Glu Phe Leu Lys Gln Ala Trp Phe Ile Glu Asn
                                            10
    38 Glu Glu Gln Glu Tyr Val Gln Thr Val Lys Ser Ser Lys Gly Gly Pro
                   20
                                        25
    42 Gly Ser Ala Val Ser Pro Tyr Pro Thr Phe Asn Pro Ser Ser Asp Val
                                    40
    46 Ala Ala Leu His Lys Ala Ile Met Val Lys Gly Val Asp Glu Ala Thr
    47
    50 Ile Ile Asp Ile Leu Thr Lys Arg Asn Asn Ala Gln Arg Gln Gln Ile
                           70
    54 Lys Ala Ala Tyr Leu Gln Glu Thr Gly Lys Pro Leu Asp Glu Thr Leu
                                            90
    58 Lys Lys Ala Leu Thr Gly His Leu Glu Glu Val Val Leu Ala Leu Leu
                   100
                                        105
    62 Lys Thr Pro Ala Gln Phe Asp Ala Asp Glu Leu Arg Ala Ala Met Lys
               115
                                    120
    66 Gly Leu Gly Thr Asp Glu Asp Thr Leu Ile Glu Ile Leu Ala Ser Arg
           130
                               135
                                                    140
    70 Thr Asn Lys Glu Ile Arg Asp Ile Asn Arg Val Tyr Arg Glu Glu Leu
    71 145
                           150
                                                155
    74 Lys Arg Asp Leu Ala Lys Asp Ile Thr Ser Asp Thr Ser Gly Asp Phe
                       165
                                           170
    78 Arg Asn Ala Leu Leu Ser Leu Ala Lys Gly Asp Arg Ser Glu Asp Phe
                   180
                                        185
    82 Gly Val Asn Glu Asp Leu Ala Asp Ser Asp Ala Arg Ala Leu Tyr Glu
```

200

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING

DATE: 10/26/2001 PATENT APPLICATION: US/09/787,923 TIME: 14:59:28

Input Set : A:\ES.txt

Output Set: $N:\CRF3\10262001\1787923.raw$

86 . 87		Gly 210	Glu	Arg	Arg	_	Gly 215	Thr	Asp	Val	Asn	Val 220	Phe	Asn	Thr	Ile
90)	Leu '		Thr	Arg		Tyr		Gln	Leu	Arg	-		Phe	Gln	Lys	_
91		ra	M	Can		230	* ~ ~	Wat	N a n	Tira	235	Lou	Nan	Tou	C1.,	240
94	ınr .	LYS	туг	Ser	Lуs 245	HIS	ASP	мес	ASII	Lys 250	Va⊥	Leu	ASP	Leu	255	Leu
_	Lys (Gly	Asp	Ile		Lys	Cys	Leu	Thr		Ile	Val	Lys	Cys		Thr
99				260					265					270		
$\frac{102}{103}$	Ser	Lys	Pro 275		Phe	Phe	Ala	Glu 280		Leu	His	Gln	Ala 285		Lys	Gly
	Val	Glv			His	Lvs	Ala			. Ara	Tle	Met			Ara	Ser
107	, 41	290		9	1110	270	295					300				
110	Glu	Ile	Asp	Met	Asn	Asp	Ile	Lys	Ala	Phe	Tyr	Gln	Lys	Met	Tyr	Gly
	305				_	310					315					320
	Ile	Ser	Leu	Cys	Gln 325	Ala	Ile	Leu	Asp	Glu 330		Lys	GLy	Asp	Tyr 335	Glu
$\frac{115}{118}$	Lug	Tle	Len	. Val		Len	Cvs	: Glv	Glv						333	•
119	113.5	110	. LCu	340	mu	пси	Cys	017	345							
	<210)> S	EQ I	D NO	: 2											
				`H: 3												
124	×:212	2> T	YPE:	PRT												
125	<:213	3> 0	RGAN	IISM:	Hom	o sa	pien	S								
				NCE:			_									
129	Met	Ala	Gln	Val	Leu	Arg	Gly	Thr	Val	Thr	Asp	Phe	Pro	Gly	Phe	Asp
130	1				5					10					15	
	Glu	Arg	Ala		Ala	Glu	Thr	Leu		Lys	Ala	Met	Lys		Leu	Gly
134	TT le se	۸	a1	20	C	T1_	т о	m b se	25	Т о	m b		. N	30		A 1 -
138	THE	ASP	35	. GLU	ser	116	Leu	40	Leu	Leu	THE	ser	45	ser	ASII	Ala
	Gln	Ara		Glu	Tle	Ser	Ala		Phe	Lvs	Thr	Leu		-G1v	Ara	Asp
142	OIII	50	OLI	GIU	110	DCI	55	1114	· THE	цу	1111	60	1 110	311	1119	пър
	Leu		Asp	Asp	Leu	Lys		Glu	Leu	Thr	Gly	Lys	Phe	Glu	Lys	Leu
146			•	-		70					75	-			-	80
149	Ile	Val	Ala	Leu	Met.	Lys	Pro	Ser	Arg	Leu	Tyr	Asp	Ala	Tyr	Glu	Leu
150					85					90					95	
	Lys	His	Ala		Lys	Gly	Ala	Gly			Glu	Lys	Val			Glu
154	тіо	Tlo	λla	100	λνα	Thr	Dro	Clu	105		λκα	λlэ	т10	110		Val
158	116	TIE	115		ATY	1 111	PIO	120		цец	нту	на	125	_	GIII	Vai
	Tvr	Glu			Tyr	Gly	Ser			Glu	Asp	Asp			Gly	Asp
162	1	130			1	1	135				-	140				
165	Thr	Ser	Gly	Tyr	Tyr	Gln	Arg	Met	Leu	Val	Val	Leu	Leu	Gln	Ala	Asn
166	145					150					155					160
169	Arg	Asp	Pro	Asp	Ala	Gly	Ile	Asp	Glu	Ala	Gln	Val	Glu	Gln	Asp	Ala
170					165					170					175	
	Gln	Ala	Leu		Gln	Ala	Gly	Glu			Trp	Gly	Thr			Glu
174	_	_,		180				 ·	185			-		190		_
	Lys	Phe			Ile	Phe	GLy			Ser	Val	Ser		Leu	Arg	Lys
178			195					200					205			

RAW SEQUENCE LISTING DATE: 10/26/2001 PATENT APPLICATION: US/09/787,923 TIME: 14:59:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\10262001\I787923.raw

	Val		Asp	Lys	Tyr	Met		Ile	Ser	Gly	Phe		Ile	Glu	Glu	Thr
		210 Asp	Arg	Glu	Thr		215 Gly	Asn	Leu	Glu		220 Leu	Leu	Leu	Ala	Val
	225 Val	Lys	Ser	Ile	-	230 Ser	Ile	Pro	Ala	_	235 Leu	Ala	Glu	Thr		240 Tyr
$\begin{array}{c} 190 \\ 193 \end{array}$	Tyr	Ala	Met	Lys	245 Gly	Ala	Gly	Thr	Asp	250 Asp	His	Гhr	Leu	Ile	255 Arg	Val
194		**- 1	G	260	G	a1	r1 -	3	265	Dh.	3	r1 -	3	270	a 1	D. l
198			275					280					285		Glu	
201 202	Arg	Lys 290	Asn	Phe	Ala	Thr	Ser 295	Leu	Tyr	Ser	Met	Ile 300	Lys	Gly	Asp	Thr
205 206	Ser	Gly	Asp	Tyr	Lys	Lys 310	Ala	Leu	Leu	Leu	Leu 315	Cys	Gly	Glu	Asp	Asp 320
		0> SI	EQ II	ON C	: 3											
210 <211> LENGTH: 323																
		2> T														
				ISM:		sap	piens	3								
				NCE:		Val	Clu	иіс	λνα	C157	Thr	V = 1	λκα	Agn	Tyr	Dro
217		нта	ser	116	11p	vai	атА	птэ	Arg	10	1111	vai	Aly	АБР	15	PIO
		Phe	Ser	Pro	_	Val	Asp	Ala	Glu		Ile	Gln	Lvs	Ala	Ile	Arq
221				20			1		25				-1-	30		
224	Gly	Ile	Gly	Thr	Asp	Glu	Lys	Met	Leu	Ile	Ser	Ile	Leu	Thr	Glu	Arg
225			35					40					45			
228 229	Ser	Asn 50	Ala	Gln	Arg	Gln	Leu 55	Ile	Val	Lys	Glu	Tyr 60	Gln	Ala	Ala	Tyr
232 233	_	Lys	Glu	Leu	Lys	Asp 70	Asp	Leu	Lys	Gly	Asp 75	Leu	Ser	Gly	His	Phe 80
		His	Leu	Met.	Val 85	Ala	Leu	Val	Thr	Pro 90	Pro	Ala	Val	Phe	Asp 95	Ala
240	Lys	Gln	Leu	_		Ser	Met	Lys	_		Gly	Thr	Asn		Asp	Ala
241	T	T1.0	C1	100	T	The	m b so	7	105	Con	7 20.00	/3.1 m	Ma+	110	7 a n	тас
245			115					120					125		Asp	
248 249	Ser	Gln 130	Ala	Tyr	Tyr	Thr	Val 135	Tyr	Lys	Lys	Ser	Leu 140	Gly	Asp	Asp	Ile
	Ser 145	Ser	Glu	Thr	Ser	Gly 150	Asp	Phe	Arg	Lys	Ala 155	Leu	Leu	Thr	Leu	Ala 160
		Gly	Arg	Arg	Asp		Ser	Leu	Lys	Val		Glu	His	Leu	Ala	
257		•			165				•	170	-				175	-
260 261	Gln	Asp	Ala	Gln 180	Ile	Leu	Tyr	Lys	Ala 185	Gly	Glu	Asn	Arg	Trp 190	Gly	Thr
264 265	Asp	Glu	Asp 195	Lys	Phe	Thr	Glu	Ile 200	Leu	Cys	Leu	Arg	Ser 205	Phe	Pro	Gln
	Leu	Lys		Thr	Phe	Asp	Glu		Arq	Asn	Ile	Ser		Lys	Asp	Ile
269		210				. T	215	4 -	,			220		4	t	
		Asp	Ser	Ile	Lys	Gly	Glu	Leu	Ser	Gly		Phe	Glu	Asp	Leu	Leu
273	225					230					235					240

RAW SEQUENCE LISTING DATE: 10/26/2001 PATENT APPLICATION: US/09/787,923 TIME: 14:59:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\10262001\I787923.raw

276 Leu Ala Ile Val Asn Cys Val Arg Asn Thr Pro Ala Phe Leu Ala Glu 277 245 250 280 Arg Leu His Arg Ala Leu Lys Gly Ile Gly Thr Asp Glu Phe Thr Leu 265 284 Asn Arg Ile Met Val Ser Arg Ser Glu Ile Asp Leu Leu Asp Ile Arg 275 280 285 288 Thr Glu Phe Lys Lys His Tyr Gly Tyr Ser Leu Tyr Ser Ala Ile Lys 289 290 295 292 Ser Asp Thr Ser Gly Asp Tyr Glu Ile Thr Leu Leu Lys Ile Cys Gly 293 305 310 315 296 Gly Asp Asp 300 <210> SEQ ID NO: 4 301 <211> LENGTH: 85 302 <212> TYPE: PRT 303 <213> ORGANISM: Homo sapiens 305 <400> SEQUENCE: 4 307 Met Ala Thr Lys Gly Gly Thr Val Lys Ala Ala Ser Gly Phe Asn Ala 311 Met Glu Asp Ala Gln Thr Leu Arg Lys Ala Met Lys Gly Leu Gly Thr 312 20 25 315 Asp Glu Asp Ala Ile Ile Ser Val Leu Ala Tyr Arg Asn Thr Ala Gln 40 319 Arg Gln Glu Tle Arg Thr Ala Tyr Lys Ser Thr Ile Gly Arg Asp Leu 55 323 Ile Asp Asp Leu Lys Ser Glu Leu Ser Gly Asn Phe Glu Gln Val Ile 70 327 Val Gly Met Met Thr 331 <210> SEQ ID NO: 5 332 <211> LENGTH: 235 333 <212> TYPE: PRT 334 <213> ORGANISM: Homo sapiens 336 <400> SEQUENCE: 5 338 Pro Thr Val Leu Tyr Asp Val Gln Glu Leu Gln Arg Lys Ala Met Lys 342 Gly Ala Gly Thr Asp Glu Gly Cys Leu Ile Glu Ile Leu Ala Ser Arg 20 346 Thr Pro Glu Glu Ile Arg Arg Ile Asn Gln Thr Tyr Gln Leu Gln Tyr 347 35 4.0 350 Gly Arg Ser Leu Glu Asp Asp Ile Arg Ser Asp Thr Ser Phe Met Phe 55 354 Gln Arg Val Leu Val Ser Leu Ser Ala Gly Gly Arg Asp Glu Gly Asn 75 7.0 358 Tyr Leu Asp Asp Ala Leu Val Arg Gln Asp Ala Gln Asp Leu Tyr Glu 85 362 Ala Gly Glu Lys Lys Trp Gly Thr Asp Glu Val Lys Phe Leu Thr Val 100 105 366 Leu Cys Ser Arg Asn Arg Asn His Leu Leu His Val Phe Asp Glu Tyr 367 115 120

RAW SEQUENCE LISTING

DATE: 10/26/2001

RAW SEQUENCE LISTING DATE: 10/26/200 PATENT APPLICATION: US/09/787,923 TIME: 14:59:28

Input Set : A:\ES.txt

Output Set: N:\CRF3\10262001\I787923.raw

370 371	Lys	Arg 130	Ile	Ser	Gln	Lys	Asp 135	Ile	Glu	Gln	Ser	Ile 140	Lys	Ser	Glu	Thr
374 375		Gly	Ser	Phe	Glu	Asp 150	Ala	Leu	Leu	Ala	11e 155	Val	Lys	Cys	Met	Arg 160
378 379	Asn	Lys	Ser	Ala	Tyr 165	Phe	Ala	Glu	Lys	Leu 170	Tyr	Lys	Ser	Met	Lys 175	Gly
382 383	Leu	Gly	Thr	Asp 180	Asp	Asn	Thr	Leu	Ile 185	Arg	Val	Met	Val	Ser 190	Arg	Ala
386 387	Glu	Ile	Asp 195	Met	Leu	Asp	Ile	Arg 200	Ala	His	Phe	Lys	Arg 205	Leu	Tyr	Gly
390 391	Lys	Ser 210	Leu	Tyr	Ser	Phe	Ile 215	Lys	Gly	Asp	Thr	Ser 220	Gly	Asp	Tyr	Arg
394 395	_	Val	Leu	Leu	Val	Leu 230	Cys	Gly	Gly	Asp	Asp 235					

VERIFICATION SUMMARY

DATE: 10/26/2001

PATENT APPLICATION: US/09/787,923 TIME: 14:59:29

Input Set : A:\ES.txt

Output Set: $N:\CRF3\10262001\1787923.raw$